WE CLAIM:

1. A chemical vapor deposition process for depositing a nitrogen doped titanium oxide coating on a hot glass substrate, comprising:

   a) providing a hot glass substrate having a major surface upon which a nitrogen doped titanium oxide coating is to be deposited;

   b) providing a uniform, vaporized reactant mixture containing a titanium compound, an oxygen-containing compound, and a nitrogen compound;

   c) delivering the vaporized reactant mixture to the major surface of the hot glass substrate and reacting the mixture to deposit a coating of nitrogen doped titanium oxide on the major surface of the hot glass substrate; and

   d) cooling the coated glass substrate to ambient temperature.

2. The process of claim 1, wherein the titanium compound is chosen from the group consisting of TiX_4, $Ti(OR)_4$, and $Ti(NR_2)_4$ where X = a halogen and R= an organic alkyl chain containing 1-4 carbon atoms.

3. The process of claim 2 wherein the titanium compound comprises a halogenated titanium compound.

4. The process of claim 3 wherein the halogenated titanium compound comprises a chlorinated titanium compound.

5. The process of claim 4 wherein the chlorinated titanium compound comprises $TiCl_4$.

6. The process of claim 1 wherein the oxygen-containing compound is chosen from the group consisting of O_2 and R^1COOR^2 where R^1= H or an organic chain containing 1-4 carbon atoms and R^2= an organic chain containing 2-4 carbon atoms.

7. The process of claim 6 wherein the oxygen-containing compound comprises ethyl acetate.

8. The process of claim 1 wherein the nitrogen-containing compound is chosen from the group consisting of R_xNH_{3-x}, where x = 0-3 and R= an organic chain containing 1-4 carbon atoms; RCN, where R= an organic chain containing 1-4 carbon atoms, $R^1C(O)NR^2R^3$, where R^1= H or an organic chain containing 1-4 carbon atoms, R^2 = H or an organic chain containing 1-4 carbon atoms and R^3=H or an organic chain containing 1-4 carbon atoms and mixtures thereof.

9 The process of claim 8 wherein the nitrogen-containing compound comprises ammonia.

10. The process of claim 1 wherein the coating process a float glass manufacturing process.

11. The process of claim 10 wherein the coating process takes place in, or adjacent to, the float bath.

12. The process of claim 11 wherein the coating process occurs at a temperature of from 900-1350°F.

13. The process of claim 12 wherein the coating process occurs at a temperature of from 1100-1280°F.

14. The process of claim 13 wherein the coating process occurs at atmospheric pressure.

15. The process of claim 14 wherein the titanium oxide coating is deposited at a thickness of from 10 Å to 2500 Å.

16. The process of claim 15 wherein the titanium oxide coating is deposited at a thickness of from 100 Å to 500 Å.

17. The process of claim 1 wherein a color suppressing coating is deposited on the major surface of the hot glass substrate prior to the deposition of the titanium oxide coating thereon.

18. A chemical vapor deposition process for applying a nitrogen doped titanium oxide coating to a surface on a hot glass substrate comprising:

a) providing a hot glass substrate, including a surface upon which a nitrogen doped titanium oxide coating is to be deposited;

b) depositing a sodium diffusion barrier layer directly on said hot glass substrate;

c) providing a uniform, vaporized reactant mixture comprising: a titanium compound, chosen from the group consisting of TiX_4, $Ti(OR)_4$ and $Ti(NR_2)_4$ where X = a halogen and R = an organic alkyl chain containing 1-4 carbon atoms; an oxygen-containing compound chosen from the group consisting of O_2 and R^1 = H or an organic chain containing 1-4 carbon atoms and R^2 = an organic chain containing 2-4 carbon atoms; a nitrogen-containing compound chosen from the group consisting of R_xNH_{3-x}, where x = 0-3 and R^2 = an organic chain containing 1-4 carbon atoms; RCN where R = an organic chain containing 1-4 carbon atoms; R^1 $C(O)NR^2R^3$, where R^1 = H or an organic chain containing 1-4 carbon atoms, R^2 = H or an organic chain containing 1-4 carbon atoms and R^3 = H or an organic chain containing 1-4 carbon atoms, and mixtures thereof; and

d) delivering said vaporized reactant mixture to the surface of said hot glass substrate and reacting the mixture to deposit a coating of nitrogen doped titanium oxide on said surface of said hot glass substrate; and

e) cooling said coated glass substrate to ambient temperature.

19. The process of claim 18, wherein the sodium diffusion barrier layer comprises silica.

20. The process of claim 1 wherein the titanium oxide coating exhibits an average extinction coefficient greater than $7x10^{-4}$ in the range of 400-800 nm.

21. The process of claim 1 wherein the titanium oxide coating absorbs at least 20% more light in the range of 400-800 nm than the undoped titanium oxide coating.

22. The process of claim 1 wherein the titanium oxide coating exhibits absorption of light at a wavelength of greater than 400 nm to 600 nm.

23. A chemical vapor deposition process for applying a nitrogen doped titanium oxide coating to a surface on a hot glass substrate comprising:

a) providing a hot glass substrate having a surface upon which a nitrogen doped titanium oxide coating is to be deposited;

b) floating said hot glass substrate on a bath of molten tin in a controlled gaseous atmosphere;

c) depositing a color-suppressing coating directly on the surface of the hot glass substrate upon which the nitrogen doped titanium oxide is to be deposited;

d) providing a uniform, vaporized reactant mixture comprising titanium tetrachloride, ethyl acetate and ammonia;

e) delivering said vaporized reactant mixture to the surface of said hot substrate under essentially, atmospheric pressure and reacting the mixture at a temperature of from 1100° F - 1280° F, to deposit a coating of nitrogen doped titanium oxide on said surface of said hot glass substrate; and

f) cooling said coated glass substrate to ambient temperature.